## PROJECT DESCRIPTION

THIS PROJECT INVOLVES UPGRADING THE EXISTING INTERSECTION CONTROL BEACON TO A FULL TRAFFIC SIGNAL AT THE INTERSECTION OF US 301 (ROBERT CRAIN HIGHWAY) AND CROOM STATION ROAD IN PRINCE GEORGE'S COUNTY. VIDEO DETECTION IS PROPOSED FOR PRESENCE DETECTION AND NON-INVASIVE MICROLOOP PROBES FOR SETBACK DETECTION. US 301 IS ASSUMED TO RUN IN A NORTH - SOUTH DIRECTION.

### INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX PHASE FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE MAINLINE LEFT-TURN PHASING AND CONCURRENT SIDESTREET PHASING.

### CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER AND ASSOCIATED HARNESSES SHALL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL ONE (I) VIDEO DETECTION INTERFACE AND ONE (I) FOUR CHANNEL DETECTOR AMPLIFIER WITHIN THE EXISTING CABINET.

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THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO NOTIFY MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

### THE CONTACT PERSONS FOR DISTRICT #3 / OOTS ARE AS FOLLOWS:

### District #3

Mr. Brian Young Assistant District Engineer - Traffic Phone: 301-513-7358

# Mr. Augle Rebish District Utility Engineer Phone: 301-513-7350

Mr. Wayne Mowdy Assistant District Engineer - Maintenance Phone: 301-513-7304

# Mr. Kevin Nowak Assistant District Engineer - Construction Phone: 301-513-7336

Office Of Traffic & Safety Mr. Richard L. Daff Sr. Chief, Traffic Operations Division Phone: 410-787-7630

Mr. Robert Snyder Assistant Division Chief, Traffic Operations 410-787-7630 Mr. Edward Rodenhizer Team Leader Signal Operations Phone: 410-787-7650

Mr. Eugene Bailey Team Leader Sign Operations 410-787-7670

The Power Company Representative is:

Potomac Electric Power Co. 8300 Old Marlboro Pike Upper Marlboro, MD 20772 PH: 301-961-5325

WIRING DIAGRAM

A,D,G,J,K,L,O

F, G, H, J, K, L, M, N, O, P.

A,B,C,D,F,G,H, J,K,L,M,N,O,P

# EQUIPMENT LIST 'A'

EQUIPMENT T	O BE FURNISHED B	Y THE SHA.
ITEM NO	QUANTITY	DESCRIPTION
9016	I EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9086	IEA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9570	180 SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN:
		2 EA - D95-25 (24 IN. × 24 IN.)
		2 EA W3-3, FY (36 IN. × 36 IN.)
•		4 EA - W3-3, FY (48 IN. × 48 IN.)
	,	4 EA - D95-25 (30 IN. × 30 IN.)
		4 EA - D-3(2) (72 IN. × 16 IN.)
		I EA - R5-I (36 IN. x 36 IN.)

4 EA - R5-la (36 IN. × 24 IN.)

# EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

DESCRIPTION

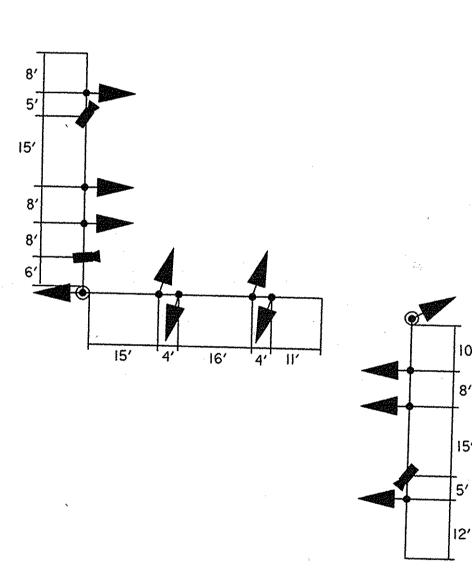
### PHASE CHART

,													
	1	2	3	4	5	6	7	8	9	10	11	12	
		(\$\\\$\\\$)	(R)>(G)	(E)>(G)	\$\\(\Frac{1}{2}\)	<b>(4)(2)(4)</b>	(E)<	(D)<	$(\mathbf{c})$ > $(\mathbf{g})$	$(\mathbf{c}) \triangleright (\mathbf{g})$	(E)>(G)	$(\mathbf{c}) > (\mathbf{G})$	
PHASE 1 AND 5	<b>←</b> G	<b>←</b> G	R	R	<b>←</b> G−	<b>←</b> G−	R	R	R	R	R	R	
		PHASE	1 AN	D 5 C	HANG	Е ТО	1 AND	6, 2	AND	5, OR	2 ANI	<b>)</b> 6	<b>V</b>
PHASE 1 AND 6	<b>←</b> G−	<b>←</b> G	G	G	R	R	R	R	R	R	R	R	<b>*</b>
PHASE 1 CHANGE	<b>←</b> Y−	<b>←</b> Y−	G	G	R	R	R	R	R	R	R	R	<b>→</b>
PHASE 2 AND 5	<b>←</b> R-	<b>←</b> R	R	R	<b>←</b> G−	<b>←</b> G−	G	G	R	R	R	R,	4
PHASE 5 CHANGE	<b>←</b> R−	<b>←</b> R−	R	R	<b>←</b> Y−	<b>←</b> Y−	G	G	R	R	R	R	d ▼_
PHASE 2 AND 6	+R-	<b>←</b> R-	G	G,	<b>←</b> R−	<b>←</b> R−	G	G	R	R	R	R	
PHASE 2 AND 6 CHANGE	<b>←</b> R−	<b>←</b> R−	Υ	Υ	<b>←</b> R−	<b>←</b> R−	Υ	Y	R	R	R	R	1
PHASE 4 AND 8	<b>4</b> -R	<b>←</b> R-	R	R	+R-	<b>←</b> R−	R	R	G	G	G	G	<b>A</b>
PHASE 4 AND 8 CHANGE	<b>←</b> R-	<b>4</b> -R−	R	R	<b>←</b> R−	<b>←</b> R−	R	R	Υ	Υ	Υ	Υ	H
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	+++++

## EQUIPMENT LIST 'B'

### EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

EM NO	OLIANTITY '	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
5005	IIO LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5006	IOO LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT LINE MARKINGS
5007	85 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS ANY WIDTH
8020	6 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8021	I EA	REMOVE AND DISPOSE OF MATERIAL AND EQUIPMENT PER ASSIGNMENT
8025	4 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8033	180 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8034	30 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8035	III5 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	350 LF	WOOD SIGN SUPPORTS UP TO 4 $\times$ 6
8038.	180 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8046	IO EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	36 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8057	900 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)



SIGNAL HEAD LAYOUT

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION

TRAFFIC ENGINEERING DESIGN DIVISION US 301 (ROBERT CRAIN HIGHWAY) AND CROOM STATION ROAD

# **GENERAL INFORMATION SHEET**

DESIGNED BY	SDY	COUNTY	PRINCE GEORGE'S
DRAWN BY	AMT	LOGMILE	16030112.34
CHECKED BY	BAB	TIMS NO	1638
F.A.P. NO	N/A	TOD NO.	N/A

STV Incorporated Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112 -ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

E-USE EXISTING WIRING

A,B,C,D,F,G, H,J,K,L,M,N,O

`A,B,C,D,F,G, H,J,K,L,M,N,O

CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

M -NON-INVASIVE MICROLOOP PROBE, LEAD-IN CABLE

NML -NON-INVASIVE MICROLOOP PROBE SET

EPS -EXISTING POWER SOURCE

PPD - PROPOSED PHONE DROP TO BE INSTALLED BY OTHERS